

L Number	Hits	Search Text	DB	Time stamp
1	8511	(video image frame) same (moving motion) same filter\$4	USPAT; US-PGPUB; IBM_TDB	2003/08/21 17:27
2	1210	((video image frame) same (moving motion) same filter\$4) same (cod\$4 decod\$4)	USPAT; US-PGPUB; IBM_TDB	2003/08/21 17:28
3	339	((video image frame) same (moving motion) same filter\$4) same (cod\$4 decod\$4)) same (adjust\$4 variable flex\$4 controlable adapt\$4 harmoni\$4)	USPAT; US-PGPUB; IBM_TDB	2003/08/21 17:29
4	19	((video image frame) same (moving motion) same filter\$4) same (cod\$4 decod\$4)) same (adjust\$4 variable flex\$4 controlable adapt\$4 harmoni\$4)) same threshold\$4	USPAT; US-PGPUB; IBM_TDB	2003/08/21 17:29

Detailed Description Text - DETX (5):

The video rendering device 66 interprets the motion vector based de-interlacing data 64 and subsequently applies an adaptive motion filtering algorithm to the decoded blocks of picture data 62 containing motion, for display on the progressive display device 58. The decoded blocks of picture data 62 having no motion above a predetermined threshold are de-interlaced using a different de-interlacing method than block of data determined to have motion. A block of data may be determined to not have motion if it can not be determined that there was motion above the threshold. Although it is preferred that the data stream decoder 60 extracts the compression motion vector data and generates the decoding motion vector based de-interlacing data 64, it will be recognized by those having ordinary skill in the art, that the video rendering device 66 can be suitably modified to carry out the determination and generation (or any part thereof) of the decoding motion vector based de-interlacing data 64. Also, the decoder can be suitably modified to perform the adaptive motion filtering on a block of data basis and transfer the information to the video rendering device

DOCUMENT-IDENTIFIER: US 20020110197 A1

TITLE: Methods and
apparatus for representing different
portions of an image
at different resolutions

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Detail Description Paragraph - DETX (22):

[0062] The reduced resolution decoder 1000 includes an optional preparer 112, a coded data buffer 112, a syntax parser and VLD circuit 120, an inverse quantization circuit 122, an inverse discrete cosine transform (IDCT) circuit 124, a downsampler 126, a summer 128, a switch 129, and a frame memory 114. In addition, the decoder 1000 includes an artifact detection and removal circuit 1037, a pair of motion compensated prediction modules 1035 which include controllable drift reduction filters 1006, a pair of analyze/extrapolate prediction circuits 1036 in addition to a select average predictions circuit 134 and a constant image region/horizontal & vertical edge detection circuit 1002.

rcuit
1002.

Detail Description Paragraph - DETX (27):

[0067] The decoder 1000 includes new and novel elements to detect the occurrence of prediction errors which occur in reduced resolution decoders and to reduce the effect of such errors. The new and novel circuitry of the decoder 1000 includes the constant image region/horizontal & vertical edge detection circuit 1002, the pair of analyze/extrapolate prediction modules 1036 which perform motion vector analysis, prediction analysis and selective extrapolation functions, the artifact detection and removal circuit 1037 and the controllable drift reduction filters 1006

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Detailed Description Text - DETX (37):

Information or video source providers often process images or videos for compression, coding, filtering, noise removal, and enhancement. This processing is often done as a pre-processing step before transmission or recording, and can be done "off-line." Noise is often introduced into a video because of, for example, imperfect initial signal generation, handling operations, and the storage medium itself. In one embodiment of the invention, the motion or displacement estimation method described above is used in an adaptive temporal filtering method to remove noise from a video. The pixel categories can also be used in an adaptive spatial filtering method

US-PAT-NO:

6072830

DOCUMENT-IDENTIFIER: US 6072830 A

TITLE: Method for generating
a compressed video signal

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Detailed Description Text - DETX (87):

The present invention provides methods to enhance the motion estimation process by means of pre-filtering where the pre-filtering is a variable filter whose strength is set at the outset of a set of coded images to reduce the number of bits spent on motion estimation. For example, a temporal and/or spatial filter may be used before encoding an image to reduce the high frequency components from being interpreted as motion which would require more bits to encode. Typically two, one-dimensional filters are used--one in the horizontal direction and one in the vertical direction. Alternatively, other filters may be used, such as a two-dimensional filter, a median filter, or a temporal filter (a temporal filter would filter between two image planes--the

ween two image planes--the one to be encoded and the previous one). As a further alternative, a combination of these filters could also be used for pre-filtering. The filter strength is set at the outset of each image macro block depending upon how much motion is present in a given macroblock

US-PAT-NO:

6356592

DOCUMENT-IDENTIFIER:

US 6356592 B1

TITLE:

apparatus

Moving image coding

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Brief Summary Text - BSTX (3):

In moving image compression coding, a moving image coding scheme based on a combination of motion compensation and orthogonal transformation is often used. Image data input to a coding apparatus contains high-frequency components due to noise. To prevent a deterioration in coding efficiency due to such high-frequency components, pre-processing is performed by using an intraframe filter. The above intraframe filter has the effect of removing high-frequency components that impair spatial correlation. The removal of such high-frequency components, however, leads to a decrease in resolution and a deterioration in image quality in a still area, in particular. A scheme for solving this problem is disclosed in, for example, Japanese Patent Laid-Open No. 2-154588. In this scheme, the filter strength is

problem is disclosed in, for example,
Japanese Patent Laid-Open No. 2-154588.
In this scheme, the filter strength is
changed for the still and moving areas
of a moving image such that a weak filter is
used for the still area, and a
strong filter is used for the moving area